Washington State Department of Transportation

Washington State Ferries

Keystone Citizen Advisory Group

Keystone Harbor Environmental Analysis Update

IMPACTS TO EBEY'S LANDING NATIONAL HISTORIC RESERVE

Ebey's Landing National Historical Reserve was not directly considered in the screening-level analysis of harbor options. The intent of this analysis was to differentiate between options. Because all of the harbor options are located within Ebey's Landing, it is likely that any impacts to the character of the Ebey's Landing would be similar among all the options.

- The existing Keystone Terminal facilities, built when the Army Corps of Engineers created Keystone Harbor in 1948, are utilitarian in design and were constructed with little or no consideration to the now-recognized "cultural landscape" protected by the Ebey's Landing National Historical Reserve.
- A ferry terminal has been located within the area now referred to as the Ebey's Landing National Historical Reserve since the early 1900s, although the reserve was formally designated in 1978.
- Very little information is currently known about the potential architectural design of any new terminal facilities in the harbor and, thus, very little can be identified in regards to specific impacts. However, it can be assumed that the new facilities in the harbor will be larger and more prominent than the existing facilities and that they will have a greater impact on the historic cultural landscape of Ebey's Landing. To minimize these potential effects, the new facilities could incorporate some or all the following design features:
    - The height of any structures would be limited to reduce visual intrusion
    - Facilities would be designed to blend into the visual landscape
    - Buildings and other facilities would be designed to mimic 19th century farmsteads and 19th/early 20th century waterfront facilities

IMPACTS TO CROCKETT LAKE

Crockett Lake is a body of brackish water covering several hundred acres east of the Keystone harbor. It is separated from Puget Sound by a sand spit that is approximately 1,000 feet wide. Runoff from surrounding lands enters the lake at several locations. The lake discharges through a 1,000-foot long canal to the northern (inner) portion of Keystone Harbor. At the head of the canal, near the Highway 20 crossing, is a concrete control structure. This structure is used to control the lake level. It was originally installed in 1948 by Island County Drainage District No. 6. At that time the control structure only allowed lake water to flow in a one-way direction out of the lake, through two culverts that discharge under Highway 20 and into Keystone Harbor. A gate automatically closed to prevent the inflow of marine water into the lake at higher tides. Over the years, the structure deteriorated and was rebuilt. It now allows for two-way flow to and from the lake. When the sea level is lower than the lake level, the lake discharges to the harbor. Conversely, during periods of higher tides, when the sea level is higher than the lake level, marine water flows into the lake. The restricted opening through the structure limits the amount of marine water inflow to the lake, preventing the lake level from rising too high. In the past, high lake levels have inundated septic drain fields and may have caused road flooding.

As a result of several lawsuits, the lake level has been stipulated in a court judgment. The flow control structure is operated by Tom Azmus of the Fort Casey Conference Center. (The Center is run by Seattle Pacific University.) Mr. Azmus reports that through several years of operational experience, the opening through the structure has been set such that satisfactory lake levels are maintained the year round. Weekly lake level readings are taken and Mr. Azmus is sending a year's worth of the most recent data.

Very little water quality data exist for the lake. Aside from some coliform (bacteria) data, which is being requested from the Island County Health Department, no other water quality data on the lake have been found. In the early 1990s mosquitoes became a problem. Further lake level adjustments and mosquito eradication efforts were carried out at that time. Mosquitoes have not been reported to be a major problem in recent years.

It is evident that the lake level within Crockett Lake is highly dependent upon its existing connection with Keystone Harbor. Factors controlling the water quality of the lake, such as salinity and water circulation, are also undoubtedly affected by operation of the control structure, although they have not apparently played a primary role in water level management of the lake. An unobstructed connection of the control structure to marine waters is essential for its continued operation. Harbor Options 2, 4 and 6 of the Keystone Harbor Study show the ferry docking location at or near its current location at the head of the harbor, near the current lake outlet. These options should assure that the long-term connection of Crockett Lake to the harbor remains little changed from the current conditions. For Harbor Options 3 and 5, the ferry dock would be located on the outer portion of the harbor. If the harbor was not dredged, siltation might eventually

restrict the culvert discharge location and negatively impact the operation of the control structure. This, in turn, could impact the water level of Crockett Lake.

If either Harbor Option 3 or 5 is carried forward as an alternative for the project, it is recommended that a circulation study be carried out to determine the long-term effects upon Keystone Harbor and the outlet from Crockett Lake. This study should develop one or more approaches for assuring that an adequate long-term hydraulic connection between the lake and marine waters is maintained. During preliminary discussions, the U.S. Army Corps of Engineers has indicated that it may continue to dredge the harbor, as a harbor of safe refuge, if the ferry terminal relocated outside of the harbor. Under these circumstances, continued dredging of the harbor could require congressional approval. Any future circulation study should include an assessment of the Corps continued dredging of the harbor.